

Richmond Dispatch.

THURSDAY.....MARCH 10, 1881.

RICHMOND, VA., March 9, 1881.
Editors Dispatch: Will you please be kind enough to inform me who was General Grant's Vice during his first and second terms of office? By so doing will you greatly oblige. A CONSTANT READER.

1. Schuyler Colfax.

2. Henry Wilson.

Editors Dispatch: Please be so kind as to print in an early issue of your paper Bret Harte's poem entitled "On the Land," and greatly oblige. E. E. F.

MARCH 7, 1881.

[Send it to us.]

Interesting Letter from Professor Winston.

Editors Dispatch: It would be quite ungracious in me not to make courteous reply to the inquiry of your correspondent "X." in this morning's paper, for it is accompanied by so pleasant a note, and is sustained, moreover, by your potent editorial endorsement.

But I really have nothing new on the subject of the tides; and I take up the question reluctantly, as I am confessedly somewhat involved, and the explanation, in the absence of diagrams, is a trifle difficult.

Let me say first that I am not a little surprised to find, as I have done recently, that so many thoughtful persons have trouble with the theory of the tides. Some "can not see" how the moon raises the tides at all, and say, perhaps, that there is no gravity enough to pull back the water even if the moon should pull it up. Others, like your correspondent, are puzzled by the double tide, and can hardly understand how the attraction of the moon can make two tides at the same time on opposite sides of the earth, while the moon's pulling one way can make the water rise in exactly the opposite direction. And others still stumble at the fact that the little moon so far outdoes the mighty sun in this matter of tide-raising.

Now as to the moon causing the tides in general, I am sorry to see your intimation that this is a question yet unsettled. Permit me to say just a word or two on this point.

It is a perfectly well known fact that the tides and the moon do always go together.

This is indisputable. Whatever difficulties may exist as to tides being higher in some places than in others and lower in reaching some points than others, yet the time of their occurrence at any particular place is fixed and definite. No tide has ever occurred here in Richmond, I venture to say, except when the moon was in one of two positions—either four hours and twenty minutes after it had reached its highest point overhead or the same time after it had reached its lowest point underneath. Yet this is a chance coincidence, for the tides here, I can tell the exact hour of high tide, here, say on the 4th of July next. How? Simply by knowing that the moon will be at its highest point overhead on that day. And thus, in fact, the predictions are made that are published every day in the Dispatch. But is there any reason in the matter? Can my casual relation be traced between the presence of the moon and the rising of the water? I reply that if the law of gravitation holds good here—if every body in the universe attracts every other body, and if this attraction is mutual, and varies with the distance, as that law declares—then the moon of necessity must raise tides.

And thus and uniting, therefore, and I deferentially submit that, so far from being an unsettled question, the evidence for the moon's causing the tides is about the same in kind and degree as that by which we attribute the coming of day and night to the rising and setting of the sun.

But let us hasten to the question propounded by "X." and see if we can account for the tide on the side of the earth farthest from the moon.

To simplify the question as much as possible, let us take the earth to be a solid globe 8,000 miles in diameter, and covered entirely by water. Let us obliterate the moon for the time being, and think of the earth under all the other forces acting on it (its own gravity, the sun, &c.) as perfectly spherical, and revolving around in a certain orbit.

Now let us suddenly bring in the moon, and locate it 240,000 miles from the earth's centre. The two attract each other, according to our laws of gravitation referred to above, and begin to move towards each other as far as other forces will allow. For definiteness, suppose that the earth's centre (carrying the whole solid earth with it) moves just 100 feet—the being what the moon could do at the distance of 240,000 miles. But the water just under the moon is only 236,000 miles; of this, of course, would be by far the more attracted, and being water, and free to move for itself, would move farther, say 105 feet instead of 100. The water on the opposite side of the earth is 244,000 miles off; it would not be attracted so much; it would move only 95 feet instead of 100.

Now look at the shape of our globe; the water next to the moon is evidently just 5 feet farther from the centre of the earth than it was before—the tide has risen 5 feet; the water also on the other side is just 5 feet farther from the centre of the earth than it was before—it is that much "higher"—the tide has risen 5 feet on that side also.

And thus are produced by the differential action of the moon on the two sides and the centre of the earth, respectively the double tide. The sun being almost 400 times as great as the moon, and as near to one side of the earth as to the other, and so his differential attraction is very slight, and hence he does little in raising the tides.

Possibly an illustration may be of service on the whole subject. Let us try heat, as that obeys the same law as to weakening by distance that applies to gravity. Take three thermometers and tie them crosswise to a yardstick, one at each end and one in the middle; suppose that all the thermometers stand together, say at 60°. Now, take your stick of thermometers out and turn it end foremost towards the sun or towards a very large but distant fire; all the thermometers may rise, but they will rise together, as no difference between the one nearest the sun and that furthest from it. But now carry it near a small fire: the one on the end nearest the fire will rise say to 75°; the middle one less, say to 70°; the farther one still less, say to 65°. Thus, regarding the *water as fixed*, both end ones have moved away from it in opposite directions by the action of the same fire; just as both water surfaces moved away from the centre of the earth by the same attraction of the moon.

Reverting the length of this, and notwithstanding whether some points have been given with sufficient fulness, I remain yours, very respectfully,

J. C. WINSTON,
Richmond College, Virginia, March 8,

A Cremation Society Organized.

NEW YORK, March 8.—About twenty-five gentlemen and three ladies met in Cooper Institute to-night to perfect the organization known as the New York Cremation Society. The following officers were unanimously elected: President, J. B. Burgeson, captain of the United States navy-yard in Brooklyn; Vice-Presidents, DeWan Bloodgood and E. C. Townsend; Corresponding Secretary, J. S. Cobb; Recording and Financial Secretary, D. W. Craig; Treasurer, E. C. Cockey; and Executive Committee, J. E. P. Doyle, Captain Putzel, E. C. W. Dreyer, W. F. Kremer, and A. C. C. Tamm.

The Southern Security Company.

HARRISBURG, March 8.—The franchises of the Southern Security Company, which is in arrears to the State for taxes, were to-day offered for sale by Sheriff Reel, at the instance of the Commonwealth. The highest amount bid was \$8,350; but as the privileges granted by the charter under which the company was incorporated are exceedingly valuable, the Commonwealth refused to have the franchises knocked down at so low a figure, and the sale was postponed until tomorrow afternoon.

Virginia and the Race-Horse.
Between Teuf, Field, and Farm, a Judge Hughes' letter "Carries us back to Ole Virginia." An old "Virginian" is getting scarce, and it does one of the surviving old fogies heart good to read such a letter, even so oftener than once in a hundred years. Yes, verily, by the time that old J. E., Dr. Bigby, and about a dozen others are gone, it will have become a common matter for some of the modern things born upon the soil of the old Commonwealth to not only not know the fact, but to conceal it.

Events have improved the old-time Virginian out of demand. If those old chaps who, as leaders, flourished when "bar Boston" or "bar Planet" was a common phrase attached to racing propositions, have good sense, they will be still in their holes and dream on forever of their shadows past.

They would be of no more use to themselves in this crooked-head and bob-tailed than a cast-iron crocodile at a steep-chase, or a prescher of the old reliable "Louis H. F." brand would in a modern gilt-edged pulpit. But what about the horse? Well, anybody can write or talk on the horse subject. True, if the types used in printing all the absurd nonsense, all the conflicting teachings and astoundingly tricky theories that have appeared in connection with breeding and other matters in re horse—if these types were cast into bullets, they would probably suffice to kill all the applicants for office under the expectant administration. It might be a case of *nip and tuck*, however. But no matter; still they write, and new ones, each really knowing less than his predecessor, continually come forward and augment the already ponderous pile of horse literature.

Judge Hughes' letter will no doubt be the subject of much criticism, and the editor of the *Teuf, Field, and Farm* invites the attack by inaugurating it himself. He calls the letter "aggressive," a term that it strikes the writer that the article hardly merits.

The truth is, it would appear, in the face of the facts that the Judge might have produced, that his moderate style seems to have been inspired by a magnanimous sentiment and for fear of hurting somebody else's feelings, in that he might have said so much more than he did say when reading the

Past Horse Glories

Now, Judge, you will be compelled to write another, and let us have what you have evidently saved up. The writer of this article has no single copy of stock-book or turf-register at hand, and is, however, compelled to force his mind into other channels (two children at his elbow, with the measles, exuding), and hence fails to write from memory of names and figures, as a mere slip in a single matter of fact would be sure to be more than of any importance in an unfair manner, the said opponent having his records at before him.

The editor of the *Turf* "smiles" at his man of straw that he makes up of a distorted view of Judge Hughes' meaning. (By parenthesis, what an uncivil act it is for an editor to fight an outsider—about as brave as it would be for a man standing with a match at the breach of a field-gate filled with canister to dare a lame boy with a single-barrelled pistol and fifty yards of "come on!" Worse than his boy, however, the Shetland Islander, but we could take some of them to a country where buckwheat grasses were indigenous, and where we could get grain also cheap.)

After awhile we should have our Clydesdales, Pintos, and other big, soft-jointed, fat-headed, dappled, jangly horses, as some of our ponies would take to one place and some to another. Some, in order to make race-horses, we would take to a dry, temperate climate, like Eastern Virginia, and let them eat short grass, not grow too fat, but would increase their size to an average horse. Sized the individuals and try them on a course—one, two, and three, and four miles at a heat. Breed from the proved ones—from the winners, and after awhile we would have a race-horse with hard bone, big lungs, length where it is needed, and the ability to go the gate and distance, because it has been required that he shall have it.

I was not afraid, however, that I would say that the editorial of the *Turf* seems to have been written in an ungrieved moment, and the editor should have known better than to gravely give himself to the expressed paradox that "forcing" anything can produce "stamina." The thing,

PURE AND SIMPLE,

cannot be proved of horses, or anything else; nor, indeed, will starving produce stunting; but of the two extremes, one must need be used, partial starving will come nearer to success than continued gorging and coxing the animal to eat.

Still-feeding and rich grasses will make beef and pork, and will make a two-year-old colt 16 hands high and weigh 1,200, and he will run one race or probably two of three-quarters or one mile very fast, but unless he has an extra share of the blood you don't hear from him again, and as to a four-mile heat race of four heats! Come now, Mr. Editor, let yourself out on it. What a stirring thing you could make of it. Never fear. It will not hurt Kentucky. Breeders would not do it, but we could take some of them to a country where buckwheat grasses were indigenous, and where we could get grain also cheap.

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THE ARAB HORSE

imported into Canada, and bred upon him, will get long hair and become a different horse. I believe, imported into Eastern Virginia and parts of North and South Carolina (and give him a little sand to eat), he can be kept nearly to his type.

I also say that while the improved English race-horse can beat the little Arabs in certain kinds of trials of speed, I am not prepared to accept it as a proved fact that the Arabs cannot, under certain conditions, show their superiority of endurance over a distance of ground with meagre feeding, not sun, &c.

But, Mr. Editor, I will stop or you will stop me. "Virginia race-horses" is a big subject, and how we would like to see you, Mr. Editor, let yourself out on it. What a stirring thing you could make of it. Never fear. It will not hurt Kentucky. Breeders would not do it, but we could take some of them to a country where buckwheat grasses were indigenous, and where we could get grain also cheap.

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THIS GRAND HOUSE.

After being on the turf eight years, was at last vanquished by Fashion, as travelling to meet her own ground in New Jersey, after her being adjudged from Virginia to be the winner of the race.

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